United States Court of Appeals
for the
District of Columbia Circuit

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United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA

No. 7333

MARK A. WECKERLY AND TOLEDO
SCALE MANUFACTURING COMPANY (ASSIGNEE),
Appellants,

416

vs.

CONWAY P. COE, COMMISSIONER OF PATENTS.

BRIEF FOR APPELLANTS

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United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA

No. 7333

Mark A. Weckerly and Toledo
Scale Manufacturing Company (Assignee),
Appellants,

vs.

Conway P. Coe, Commissioner of Patents.

BRIEF FOR APPELLANTS

I. STATEMENT OF THE CASE

Appellants brought this suit in equity under R. S. 4915 against the Commissioner of Patents to obtain a decree authorizing the issuance of a patent on application Serial No. 441,385.

This application discloses and claims an apparatus for automatically weighing out a desired quantity of material. The apparatus may be used, for example, to weigh 200 pounds of flour into a barrel, by simply placing the barrel in position under the discharge spout, and then setting the apparatus in operation. As the apparatus operates, it causes the flour to be discharged into the barrel. Then when exactly 200 pounds of flour has passed into the barrel, the discharge of flour is automatically stopped.

Various devices for automatically weighing out material had been known for many years before the invention of the improved form of automatic weighing device disclosed in appellants' application. Because of their inaccuracy, however, the various prior devices were unsatisfactory. Appellants' improvement has remedied the inherent inaccuracy of prior automatic weighing devices, and appellants' improved device is capable of performing precise weighing operations that could never be performed by prior devices.

Fig. I of the drawings of the application (R., p. 47) shows an apparatus having a screw conveyor 57 for withdrawing material from the bottom of a supply bin 56 and feeding it through a spout 58 into a barrel 41 standing on the platform 5 of a weighing scale. An electric motor 53 is used to drive the screw conveyor through a belt 55a. Fig. I shows the appearance of the apparatus before the feeding of material starts, when the barrel is empty. The pointer 14 is adjustable, and has been set at 200 pounds because it is desired to feed 200 pounds of material into the barrel.

After the electric current for driving the motor 53 has been turned on, the material flows into the barrel, and its weight causes the pointer to rotate in a counterclockwise direction. The apparatus is so constructed as to stop the feeding of the material when the pointer reaches zero. If it were desired to feed 100 pounds of material into the barrel, the pointer would be set at 100 pounds. It would then require the feeding of only 100 pounds of material to cause the pointer to travel to zero, when the feeding of material would be stopped.

The weighing scale is provided with a photo-electric control that causes the motor 53 to stop when the desired amount of material has been fed into the barrel. This photo-electric control consists of an electric lamp that throws a beam of light onto a photo-electric cell. Since the cell is connected in an electric circuit, a current flows through the cell that varies with the intensity of the light falling upon the cell. The amount of light allowed to pass from the lamp to the cell is varied by means of a shutter attached to the weighing mechanism.

Connected to the photo-electric cell is an electrical device called a relay. When actuated by the photo-electric cell, this relay cuts off the current flowing to the motor. The apparatus is so adjusted that when the desired quantity of material has been fed, the weighing mechanism causes the shutter to vary the illumination of the photo-electric cell, and thus actuate the relay to stop the motor.

The Refusal of the Commissioner of Patents to Grant a Patent for this Apparatus was Based on Certain Prior Patents, None of which Shows the Complete Apparatus.

The Commissioner of Patents held that appellants' apparatus could be constructed from an apparatus, shown in one prior patent, which is different from appellants' apparatus in certain important parts, by substituting the proper parts taken from a device shown in another prior patent.

The principal prior patent relied upon by the Commissioner of Patents is Rees patent No. 1,845,557, which shows an apparatus for automatically weighing out a desired quantity of material. In Fig. 1 of the drawing of this patent (R., p. 97), at the left end of the figure, is shown a weighing scale having a pointer 34. This pointer is connected in an electrical circuit, and is used to control the feeding of the material to the scale, so as to stop the flow of material when the desired amount has been fed. When the pointer approaches the fixed electrode 24, shown in Fig. 3, a spark jumps between the electrode and the pointer, and the resulting electrical impulse is used to actuate a device that stops the flow of material.

The apparatus disclosed in appellants' application does not employ the spark gap control shown in the Rees patent, but employs a photo-electric control. To show that photo-electric controls have been used in devices other than apparatus for automatically weighing out material, the Commsisioner of Patents cited several prior patents, relying chiefly upon Machlet patent No. 1,758,450.

Fig. 1 of the drawings of the Machlet patent (R., p. 103) shows an apparatus that keeps the temperature of a furnace 10 approximately constant by controlling the amount of fuel gas supplied to the furnace. In the operation of this apparatus, the furnace pyrometer 11 generates an electric current, the amount of current corresponding to the temperature of the furnace. The current flows through a galvanometer 15, and causes the pointer 19 of the galvanometer to assume a position corresponding to the furnace temperature.

Just below the outer end of the pointer is a slot 23 that transmits light to a photo-electric cell 21. As shown in Fig. 2, (R., p. 104) an electric lamp 20 above the galvanometer supplies light to the photo-electric cell 21 through the slot 23. The current flowing through the photo-electric cell, which is proportionate to the amount of light entering the cell, is amplified by means of an amplifier A, and the amplified current is used to control the amount of fuel gas supplied to the furnace.

The pointer 19 keeps the furnace temperature approximately constant by controlling the amount of light entering the slot 23. If the furnace temperature starts to rise, for example, the pointer 19 begins to move in a clockwise direction so as to reduce the amount of light entering the slot. The reduction in the illumination of the photo-electric cell causes a reduction in the amount of current flowing through the cell, which in turn reduces the amount of fuel gas supplied to the furnace. The temperature of the furnace is thus prevented from rising any further, and the pointer 19 comes to rest in a new position, where it covers more of the slot than it did in its previous position. The temperature of the furnace does not remain at any exact value, and the pointer 19 does not remain in any exact position. Thus every change in the voltage of the electric power supply, as well as every change in the amount of daylight entering the room at sunrise or sunset, causes the pointer to move to a different position.

The Commissioner of Patents rejected the appellants' claims on the ground that the substitution of the Machlet photo-electric control for the spark gap control in the Rees apparatus would be an obvious substitution of an equivalent. The rejection was made in reliance upon the well-settled rule of law that it does not constitute invention to modify a known apparatus by replacing a part of the apparatus with a known equivalent, i. e., another part that is known to be capable of performing the same function in the same way.

One Issue in this Suit is Whether or Not the Machlet Patent so Describes Machlet's Photo-Electric Control as to Show that it is Capable of Performing the Same Function in the Same Way as the Rees Spark Gap Control.

In the operation of an automatic weighing device such as the Rees apparatus, the pointer swings around the dial while the material is being fed. The function of the control in such a device is to effect an abrupt, instantaneous actuation of the electrical apparatus when the pointer reaches a certain exact point in swinging around the dial, so as to stop the feeding of material as soon as the required amount of material has been weighed out. The Machlet control does not produce an abrupt actuation as Machlet's pointer reaches a definite point in swinging across the dial. The function of the Machlet control is merely to keep the pointer approximately steady.

In order to control the temperature of the furnace, the Machlet pointer must move back and forth above the slot. When the temperature of the furnace starts to change, the Machlet pointer moves a certain distance, to change the amount of light passing through the slot, and thus cause a sufficient change in the amount of fuel supplied to the furnace so that further movement of the pointer is prevented. Thus the Machlet control is incapable of holding the pointer in any exact position.

There is nothing instantaneous about the actuation effected by the Machlet control. The amount of fuel supplied to the furnace changes gradually as the Machlet pointer moves.

Long After the Filing of Appellants' Application, a Rival Inventor Applied for a Patent, which was Granted After the Filing of the Bill of Complaint in this Suit, as Patent No. 2,083,362, Covering the Invention that Appellants' Application Claims.

Unless the decision of the lower court is reversed, appellants will not be able to get their application into a Patent Office interference with this patent and establish priority of invention. The Examiner who issued the patent to a rival inventor, without setting up an interference to determine priority of invention, of course committed an inadvertent breach of the Patent Office rules.

II. ERRORS RELIED UPON

The errors specified in the "Statement of Points on Which Appellants Intend to Rely" (R., p. 18-19) may be summarized as follows:

The District Court erred:

(a) In failing to hold that none of the light sensative circuit controllers in the prior art is the equivalent of the circuit controller disclosed in Rees patent No. 1,845,557, and that the substitution of a light sensitive circuit controller for the circuit controller disclosed in the Rees patent was not an obvious substitution, but constituted invention.

(b) In failing to find that the apparatus Claimed in appellants' application performs automatic weighing operations that could not be performed by prior devices.

(c) In failing to find that the invention defined by appellants' claims has had outstanding commercial success.

(d) In failing to hold that any doubt as to the patentability of said claims should be resolved in favor of appellants, to enable them to get into a Patent Office interference with the rival inventor whose patent application, filed later than appellants' application, has matured into patent No. 2,083,362, containing claims covering the invention defined by appellants' claims.

III. STATEMENT OF POINTS TO BE ARGUED

1. It is not obvious to modify the Rees apparatus by substituting the Machlet photo-electric control for the Rees spark gap control, because the Machlet patent does not disclose that the Machlet control is capable of performing the same function in the same way as the Rees control.

> *American Tri-Ergon Corporation et al v. Thomas E. Robertson, Com'r. Pats.*, Sup. Ct. D. C., 11 U. S. P. Q. 168, at 169. (R., p. 36).

2. That appellants' application merits allowance is indicated by the fact that their improvement in automatic weighing devices has turned failure into success.

> *Carbide and Carbon Chemicals Corporation et al v. Coe, Com'r. Pats.*, Ct. App. D. C., 102 Fed (2d) 236, at 241; *Kelley et al. v. Coe, Com'r. Pats.*, Ct. App. D. C., 99 Fed (2d) 435, at 441; *In Re Coykendall*, Ct. App. D. C., 29 Fed (2d) 868, at 869. (R., p. 28, 29, 30, 33, 34, 49).

3. The claims of an application for a patent on a successful new device are not rendered unpatentable by

unsuccessful prior devices that are incapable of producing the same result.

> *Hans Wach v. Conway P. Coe, Com'r. Pats.*, Ct. App. D. C., 77 Fed (2d) 113, at 115; *Lucke et al. v. Coe, Com'r. Pats.*, Ct. App. D. C., 69 Fed (2d) 379, at 382, 383; *In Re Henry*, Ct. App. D. C., 6 Fed (2d) 699, 700.

4. The claims whose allowance is prayed for in the bill of complaint define the invention clearly.

5. The remaining references, which were not relied upon by the Board of Appeals in its decision, do not add anything to the Rees and Machlet reference. (R., p. 33, 37, 113, 119).

6. The patentability of appellants' improved automatic weighing device is evidenced by its ability to perform weighing operations that could never be performed by prior devices.

> *Thornton v. Coe, Com'r. Pats.*, Ct. App. D. C., 102 Fed (2d) 247, at 252; *Electrons, Inc., et al. v. Coe, Com'r. Pats.*, Ct. App. D. C., 99 Fed (2d) 414, at 422; *In Re Huff*, Ct. App. D. C., 48 App. D. C. 258, at 263; *In Re Eastwood*, Ct. App. D. C. 33 App. D. C. 291, at 298. (R., p. 34).

7. When appellant Mark A. Weckerly began working on the invention claimed in appellants' application, other engineers predicted that the apparatus would be unsuccessful. (R., p. 33, 34, 35, 36).

8. Appellants' apparatus has had outstanding commercial success. (R., p. 35, 36).

9. Because a patent covering the apparatus claimed in appellants' application has been issued to a rival inventor on a later application, any doubt as to the patentability of appellants' apparatus should be re-

solved in favor of appellants. *In Re Cowles,* Ct. App. D. C., 297 Fed 539, at 540; *Both v. Barr,* 1914 C. D. 29, at 30. (R., p. 34, 58, 59).

IV. ARGUMENT

The Board of Appeals' decision rejecting appellants' application, which held that it would be obvious to use the Machlet photo-electric control in the Rees apparatus in place of the Rees spark gap control, did not discuss the manner in which the photo-electric control operates in the Machlet apparatus. Appellants believe that, in holding the substitution of the Machlet control for the Rees spark gap control to be obvious, the Board of Appeals was influenced by the fact that the Machlet photo-electric control looks like the photo-electric control in appellants' apparatus, and did not consider the question whether the Machlet patent discloses that the Machlet photo-electric control is capable of performing the function required of the control for an automatic weighing device.

1. It is not Obvious to Modify the Rees Apparatus by Substituting the Machlet Photo-Electric Control for the Rees Spark Gap Control, Because the Machlet Patent does not Disclose that the Machlet Control is Capable of Performing the Same Function in the Same Way as the Rees Control.

American Tri-Ergon Corporation et al v. Thomas E. Robertson, Com'r. Pats., Sup. Ct. D. C., 11 U. S. P. Q. 168, at 169.

In order to be useful in an automatic weighing device such as the Rees apparatus, a control must be capable of causing an abrupt, instantaneous arresting of the feeding of the material when the pointer reaches a certain definite position in swinging around the dial, and this instantaneous action must not occur while the pointer lacks a hair's breadth of that definite position. The Machlet control does not produce an abrupt actuation when Machlet's pointer has moved to a definite position. All the while Machlet's pointer is moving, the amount of fuel gas supplied to the furnace is gradually changing. There is no definite position at which the Machlet pointer actuates the control. In order to perform its function of maintaining an approximately constant temperature, the Machlet control must allow the pointer to move back and forth (R., p. 36).

2. That Appellants' Application Merits Allowance is Indicated by the Fact that their Improvement in Automatic Weighing Devices has Turned Failure into Success.

> *Carbide and Carbon Chemicals Corporation et al v. Coe, Com'r. Pats.*, Ct. App. D. C., 102 Fed (2d) 236, at 241; *Kelley et al. v. Coe, Com'r. Pats.*, Ct. App. D. C., 99 Fed (2d) 435, at 441; *In Re Coykendall*, Ct. App. D. C., 29 Fed (2d) 868, at 869.

Automatic weighing devices of the type shown in the Rees patent are inherently inaccurate. In such devices the pointer of a weighing scale is used to transmit an electrical impulse after a certain amount of material has been fed to a receptacle on the scale, and the electrical impulse is used to stop the feeding of the material. The principal defect of these prior devices is the physical interference with the movement of the pointer that occurs when the electrical impulse is transmitted. The transmission of the electrical impulse always involves the application of an interfering force to the pointer.

In an automatic weighing device the weight of the material in the weighing receptacle is transmitted to the pointer through a system of levers for multiplying movement. When the weighing receptacle moves downward slightly under the influence of its load, the tip of the pointer may move several thousand times as far. It is the magnified movement of the pointer that permits the weight of material to be measured accurately by the pointer. Because of the multiplying levers by which the pointer is moved, however, the application of a very slight interfering force to the pointer causes a large error in the weight indicated by the pointer. For example, an interfering force of one-thousandth of a pound exerted at the tip of the pointer may cause an error of two or three pounds.

In the Rees apparatus the jumping of the spark at the tip of the pointer produces an interfering force against the pointer. Moreover, the spark jumps before the pointer actually gets opposite the fixed electrode. The position of the pointer at the instant the spark jumps will vary, because the repeated jumping of the spark erodes the end of the pointer and the end of the fixed electrode, and causes the pointer and fixed electrode gradually to become shorter as the apparatus is used (R., p. 28, 29).

The inherent inaccuracy of prior automatic weighing devices is inevitable under the laws of physics. That they were failures was established by the witness Weckerly, who testified not merely from opinion, but from long experience with the operation in actual practice of the various types of automatic weighing devices that have been built in this country (R., p. 28, 29, 30). In his statement to the Board of Appeals, the Patent Office Examiner who originally rejected appellants' application pointed out that the prior patents show a hundred different automatic weighing devices similar to the Rees apparatus. All of those devices, however, were inherently inaccurate, and incapable of functioning like appellants' device to perform precise weighing operations.

The appellants' apparatus is the first automatic weighing device in which no interfering force is applied to the pointer when the feeding of material is to be cut off. The specific apparatus shown in the drawings of appellants' application admits light to the photo-electric cell through a slot 18 adjacent the zero mark on the dial of the scale (see Fig. VII, R., p. 49). While material is being fed to the barrel, the slot 18 remains unobstructed as the pointer swings in a counterclockwise direction toward the zero mark. Then when the pointer reaches the zero mark, the slot 18 is suddenly covered by the end of the pointer, which acts as a shutter.

In the Machlet apparatus the photo-electric control changes the supply of fuel gas continuously, not abruptly, as Machlet's pointer moves to a new position. In contrast, the appellants' photo-electric control remains inoperative until the pointer reaches the proper position, and then effects an abrupt, instantaneous actuation of the electrical apparatus, so as to stop the feeding of material. Therefore, the appellants are able to actuate their photo-electric control by means of an abrupt rather than a gradual change in the amount of light entering their photo-electric cell. Since appellants' photo-electric control remains inoperative until the sharp change in the illumination of the cell, the accuracy of their apparatus is not affected by the lesser variations in the amount of current flowing through their electrical circuits that arise from changes in the voltage of the electric power supply or changes in the amount of daylight entering the room (R., p. 33, 34).

3. The Claims of an Application for a Patent on a Successful New Device are not Rendered Unpatentable by Unsuccessful Prior Devices that are Incapable of Producing the Same Result.

Hans Wach v. Conway P. Coe, Com'r. of Pats., Ct. App. D. C., 77 Fed (2d) 113, at 115.

The patentability of a successful new device is particularjly clear when an anticipation can only be constructed by taking parts from more than one prior potent, *Lucke et al. v. Coe, Com'r. of Pats.* Ct. App. D. C., 69 Fed (2d) 379, at 382, 383. The showing of patentability is strongest when one of the prior patents from which parts must be taken in order to construct an anticipation belongs to an unrelated or a remotely related art. *In Re. Henry*, Ct. App. D. C., 6 Fed (2d) 699, 700. To construct an anticipation for appellants' successful new automatic weighing device, the Board of Appeals combined structure from the Rees patent with structure from the Machlet patent. The latter patent belongs to the unrelated art of temperature regulators.

4. The Claims Whose Allowance is Prayed for in the Bill of Complaint Define the Invention Clearly.

Claims 43 and 48 are typical, the remaining claims being based on claim 43, and being more specific. Claim 43 defines a combination of elements, among which are: means for supplying material to the commodity receiver of a weighing mechanism; electric means including a light sensative circuit controller for controlling the material supplying means; and means connected to the weighing mechanism for varying the illumination of the light sensitive circuit controller. The purpose of the light sensitive circuit controller in this combination is to stop the feeding of the material as soon as the proper amount has been fed, by an abrupt actuation of the electrical apparatus.

Claim 48 specifies a controlling mechanism adapted to be actuated by a predetermined weight of material, including an electrical circuit, controlled by a light sensitive element that is illuminated by a light source through an aperature, means automatically movable by the weight of the material to cover the aperature, and manually operated means for preliminarily adjusting the relative positions of the covering means and the aperture. When the apparatus defined by claim 48 is used, the covering means or pointer is first manually positioned in accordance with the quantity of material to be weighed out. Then as the apparatus operates, the covering means or pointer is moved toward the aperature by the weight of the material. As soon as the predetermined amount of material has been weighed out, the aperture is covered so as to affect an abrupt actuation of the electrical apparatus.

5. The Remaining References, which were not Relied upon by the Board of Appeals in its Decision, do not add Anything to the Rees and Machlet References.

The apparatus disclosed in the German publication "Das Selen", dated 1918, is not a device for automatically weighing out materials, but merely a device for recording the variation in the weight of a substance that gains or loses weight, such as a substance that increases in weight by absorbing moisture from the atmosphere. In this device the drum T, which is covered with photographic paper, is slowly rotated on its vertical axis at a constant speed. A beam of light from the electric lamp L_1 strikes a mirror attached to the beam of the balance, and is reflected to the photographic paper on the drum. The material to be studied is placed upon the right-hand pan, which is the commodity receiver of the balance. If the material increases in weight, the commodity pan of the balance gradually descends, the mirror gradually tilts, and the beam of light reflected by the mirror travels upward on the photographic paper so as to record an ascending line on the paper.

In this apparatus a beam of light from a second lamp L_2 is reflected by a second mirror attached to the beam of the balance. As the spot of light on the photographic paper travels upward, the beam of light reflected by the second mirror travels downward, and finally strikes a photo-electric cell. When the photo-electric cell is thus illuminated, it causes the mechanism V to drop a small disk-shaped counterweight into the holder B, which is supported by the left-hand pan of the balance. The purpose of dropping the counterweight into the holder B is to make the left-hand pan descend, and thus prevent the line in the photographic paper from running off the top of the paper and cause it to start over again at the bottom of the paper. The photo-electric cell in this apparatus controls the number of counterweights on the left-hand pan. Hence the cell controls a part of the weighing mechanism instead of controlling the feeding of material to the commodity pan.

This photo-electric cell does not function as an accurate control, but is merely used to determine when the line recorded on the photographic paper shall be caused to start over again at the bottom of the paper. No accurate timing of the dropping of the counterweight is required so long as the line is prevented from running clear off the top of the paper. If the line sometimes runs a little higher and sometimes less high, the accuracy of the recording is not affected (R., p. 33).

The chart of photographic paper may be considered as divided into two halves—an upper half and a lower half. The line can be recorded just as accurately upon the upper half as upon the lower half, and the exact instant at which the line is started over on the bottom half of the chart is not material. Thus the photo-electric control in this apparatus merely determines whether the recording takes place on the upper half or on the lower half of the photographic chart, and does not determine or control the exact position of the spot of light on the paper.

Similarly, in the apparatus shown by Fig. 1 of the Hayes patent (R., p. 119), the photo-electric control 6 does not determine or control anything as to the exact position of the pendulum 3. This photo-electric control merely sends out a radio signal through the transmitter 7 during each swing of the pendulum 3, as the opening 31 in the pendulum moves across the beam of light from the lamp 5. To record the radio signals so produced, a recording apparatus may be connected to a radio receiver tuned to the signals. Thus a record of the number of swings of the pendulum occurring during a given period of time may be obtained, from which may be determined the force of gravity that is exerted where the pendulum is located.

The photo-electric control shown in Fig. 1 of the Winter patent (R., p. 113) operates likes the photo-electric control of the Machlet patent, but is less accurate. Winter shows a skirt 4 extending downward from the outer edge of the compass card in a ship's compass. Ordinarily the portion 7 of the skirt shields the photo-electric cells 8 and 9 from the lamp 10. If the ship changes its direction of travel, however, the compass card swings in the compass while the lamp and photo-electric cells remain stationary. If the compass card swings counterclockwise, the photo-electric cell 9 is illuminated by the lamp through the opening 5 in the skirt, and if the compass card swings clockwise, the cell 8 is exposed by the opening 6. As soon as one of the photo-electric cells becomes illuminated, it actuates an automatic steering apparatus, which swings the ship's rudder to one side so as to turn the ship back to the proper direction.

The turning of the ship causes the light to be again cut off from the photo-electric cell by the portion 7 of the skirt, and the cutting off of the light actuates the steering apparatus to bring the rudder back to its central position, causing the ship to continue in the proper direction. The Winter photo-electric control functions like the Machlet control, because it merely keeps the compass card or the direction of the ship approximately steady (R., p. 37). The Winter reference does not add anything to the Machlet reference, and was held by the Board of Appeals to be merely cumulative.

6. The Patentability of Appellants' Improved Automatic Weighing Device is Evidenced by its Ability to Perform Weighing Operations that could never be Performed by Prior Devices.

> *Thorton v. Coe, Com'r. Pats.,* Ct. App. D. C., 102 Fed (2d) 247, at 252; *Electrons, Inc., et al. v. Coe, Com'r. Pats.,* Ct. App. D. C., 99 Fed (2d) 414, at 422; *In Re Huff,* Ct. App. D. C., 48 App. D. C. 258, at 263; *In Re Eastwood,* Ct. App. D. C., 33 App. D. C. 291, at 298.

Appellants' apparatus is much more accurate than prior devices for automatically weighing out material. When any degree of accuracy was desired in the use of a prior automatic weighing device, it was customary to transfer each completed batch of material from the automatic weighing device to a separate weighng scale, and correct its weight by adding or removing material by hand. Appellants' apparatus is the only device that weighs out material with the same accuracy as careful hand weighing. Expensive perfumes and essential oils, and other costly ingredients that formerly were laboriously weighed out by hand are now weighed out by appellants' apparatus in commercial practice (R., p. 34).

7. When Appellant Mark A. Wackerly began Working on the Invention Claimed in Appellants' Application, Other Engineers Predicted that the Apparatus would be Unsuccessful.

The other engineers employed by appellant Toledo Scale Manufacturing Company predicted that a photoelectric control would be too unstable as compared with the controls in prior automatic weighing devices, because no physical force is required to actuate a photo-electric control (R., p. 33, 34). After appellants had proved to their own satisfaction that their apparatus was accurate, they placed the apparatus on the market. At first the concerns to whom the apparatus was offered for sale generally refused to accept it, because their engineers and purchasing agents refused to believe that the apparatus could be accurate (R., p. 35, 36).

8. Appellants' Apparatus has had Outstanding Commercial Success.

Since the concerns to which the apparatus was first offered generally refused to accept it, it was necessary for appellants to make installations of the apparatus for such concerns on trial. The devices that were installed on trial proved to be satisfactory, and were then purchased (R., p. 36).

Appellant Toledo Scale Manufacturing Company has sales offices in all the states of the United States and in most foreign countries, and has been offering devices for automatically weighing out materials for at least twenty years. Prior to 1930 the devices so offered were inaccurate, and were no better than the devices offered by competitors. During the ten years prior to 1930, appellant Toledo Scale Manufacturing Company was able to sell only three devices for automatically weighing out materials. The company then began to offer devices embodying appellants' invention. The The average price obtained for such devices is about $1,000. In 1931 the company sold two devices embodying appellants' invention, and the sales have increased each year. In 1937 it sold 45 such devices. After appellants had proved to the trade that their apparatus was reliable, some of their competitors put similar equipment on the market (R., p. 35, 36).

9. Because a Patent Covering the Apparatus Claimed in Appellants' Application has been Issued to a Rival Inventor on a Later Application, any doubt as to the Patentability of Appellants' Apparatus should be Resolved in Favor of Appellants.

Patent No. 2,083,362 is assigned to International Business Machines Corporation, a competitor of appellant Toledo Scale Manufacturing Company, and covers the apparatus disclosed in appellants' application (R., p. 34). The Patent Office Examiner who granted this patent rendered a decision inconsistent with the rejection of appellants' application.

When this patent was granted, during the pendency of the present suit, appellants asked the Patent Office to enter an amendment adding to appellants' application three claims copied from the patent, in order to initiate an interference between appellants' application and the patent. Replying to appellants' request, the Examiner refused to recommend entry of the amendment, on the ground that the decision of the court in the present suit might have a bearing on the question of the patentability of the claims copied from the patent (R., p. 58, 59). The Examiner also stated that the prior patents (hereinbefore discussed) upon which he relied in rejecting appellants' application were not mentioned by the Examiner who granted patent No. 2,083,362. It should be noted that appellants contend, as hereinbefore set forth, that the Examiner who rejected appellants' application was not justified in relying upon the references cited.

It is well settled that when a patent has been inadvertently issued while an application of another party for a patent on the same invention was pending, all doubts as to patentability are resolved in favor of the applicant, to enable him to get into an interference with the patent and establish his priority, *In Re. Cowles,* Ct.

App. D. C. 297 Fed 539, at 540; *Both v. Barr,* 1914 C. D. 29, at 30.

The danger of injustice in the refusal of a patent to an applicant after the issuance of a patent to a rival inventor on the same invention is so great that Rule 95 of the Patent Office rules of practice deprives the Examiner of authority to reject the claims of such an applicant, in the following provision:

> "In case the subject matter in controversy has been patented to one of the parties but is deemed by the examiner not to be patentable to an applicant, he shall call the case to the attention of the Commissioner."

If patent No. 2,083,362, instead of being issued during the pendency of this suit, had been issued while appellants' application was before the Patent Office Examiner, the Examiner would have had no authority to reject appellants' claims as he did, and would have been required to call the case to the attention of the Commissioner.

V. IN CONCLUSION

The references relied upon by the Commissioner of Patents show that before appellants' apparatus was invented the photo-electric cell had been used for the purpose of approximation, and not as a precise control. An automatic weighing device, in order to be satisfactory, must operate with the utmost precision. Appellants' automatic weighing apparatus is controlled by a photo-electric cell—a device that had not previously been used as a precise control. Yet the photo-electric cell does not impair the accuracy of appellants' apparatus. Instead, the cell enhances its accuracy, because, as used in appellants' apparatus, it performs a new function in a new way.

Respectfully submitted,
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